#### SURVEY ON THE APPLICATION OF AND EXPERIENCE IN THE USE OF SOCIO-ECONOMIC CONSIDERATIONS IN DECISION-MAKING ON LIVING MODIFIED ORGANISMS

Socio-economic considerations in decision-making for living modified organisms (LMOs) were a significant and sensitive part of the negotiations of the Cartagena Protocol on Biosafety, and resulted in the adoption, as part of the Protocol, of Article 26 which specifically addresses this issue (see text box 1 below).

#### Text Box 1: Cartagena Protocol on Biosafety, Article 26 on Socio-economic considerations:

- 1. The Parties, in reaching a decision on import under this Protocol or under its domestic measures implementing the Protocol, may take into account, consistent with their international obligations, socio-economic considerations arising from the impact of living modified organisms on the conservation and sustainable use of biological diversity, especially with regard to the value of biological diversity to indigenous and local communities.
- 2. The Parties are encouraged to cooperate on research and information exchange on any socio-economic impacts of living modified organisms, especially on indigenous and local communities.

We are conducting a survey on the "application of and experience in the use of socio-economic considerations in decision-making on living modified organisms". We hope that this survey will be able to document the practical experience with socio-economic considerations in biosafety decision-making at the grassroots level across a broad range of biosafety

stakeholders.

The following responses are your opinions as someone who works in the area and do not necessarily reflect your country, government or organization's opinion. All responses will remain anonymous and only aggregate results will be presented.



#### 1. Check the box that identifies your organization

Governmen
-----------

to Educational

n Non-Government Organization

<sub>jn</sub> Inter-Governmental

j₁₁ Private Sector

j₁ Other (Specify) [

NEXT

2. What type of work do you undertake?
jn Government/Regulatory
jn Academic
jn Research for public institutions
jn Public information and/or education
jn Consulting
jn Other (Please
specify)
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### 3. Is this survey being answered after consultations with colleagues and other persons?

jn	Yes
m	No

NEXT

4. The following questions will ask about national experience with socio-economic considerations. Based on your experience, please choose from the menu below the country you will be using as your point of reference:



#### 5. In your opinion, how important is including socioeconomic considerations in decision-making concerning living modified organisms (LMOs) in your country?

	Not at all important		Neutral	Somewhat important		Do not know
Response	ja	ja	ja	jo	jo	jo

NEXT

### 6. Has your country taken any decisions with regard to the transfer, handling or use of LMOs?

yes ym No ym Don't know

NEXT

7. Does your country have a system (proposed or in effect) for	or
decision-making regarding LMOs?	

yes (in effect)
yes (proposed)
yes (proposed)
yes No
yes Don't know

If you answered 'yes (in effect)' or 'yes (proposed)', please proceed to question 8.

If you answered 'no' or 'don't know', please go to question 31.

**NEXT** 

8. Does your country's decision-making sy	ystem for LMOs allow for
socio-economic considerations?	

jm Yes jm No jm Don't know

If you answered 'yes', please proceed to question 9.
If you answered 'no' or 'don't know', please go to question 11.





#### 9. How does the decision-making system take into account socioeconomic considerations (choose one):

- Socio-economic considerations are treated in an ad hoc manner or case-by-case, but are not an explicit step in the decision-making system.
- Socio-economic considerations are covered through a general reference in the biosafety regulatory framework or other relevant framework.
- Socio-economic considerations are covered specifically through the identification of particular elements for assessment during specific steps in the process.

**NEXT** 

## 10. Which of the following specific socio-economic issues are provided for, or can be considered, under your country's decision-making system for LMOs? (check all that apply)

- Elmpacts on market access and trade at national and international levels.
- 6 Macroeconomic impacts, e.g. on sustainable development.
- Microeconomic impacts at the individual, household or community level.
- Economic impacts of changes in pest prevalence due to changes in farm management practices.
- Economic impacts of changes in application rates and effectiveness of pesticides and herbicides.
- © Compliance with biosafety measures, including institutional costs.
- © Coexistence of LMOs, e.g. with conventional and organic agriculture.
- Health-related impacts, including those resulting from changes in the use of pesticides and herbicides.
- ∈ Gender impacts.
- E Labour and Employment.
- Elmpacts on consumer choice or consumption patterns.
- Food security.
- E Land tenure.
- Rural-urban migration.
- € Farmers' Rights, e.g. control of seeds.
- Cultural, spiritual and ethical aspects.
- Impact on the conservation and sustainable use of biodiversity, e.g. use value, cultural and spiritual value of biodiversity.
- Intellectual property rights.
- Impact on public sector research and development.

ê	Other (please
	specify)
6	Don't know.

NEXT

11. Have socio-economic considerations been taken into	account
in decisions that have been taken on LMOs?	

jm Yes jm No jm Don't know

If you answered 'yes', please proceed to question 12. If you answered 'no' or 'don't know', please go to question 29.



12. Were these decisions concerning: (check all that apply)
€ The import of LMOs.
€ Others (please
specify).
€ Don't know.
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### 13. What types of organisms were the subject of these decisions? (check all that apply)

(check all that apply)
€ Living modified seeds.
€ Living modified plant products (eg. grains, fruit, etc).
€ Living modified trees.
∈ Living modified animals (including fish and crustaceans).
€ Living modified micro-organisms.
€ Others (please provide
details).
€ Don't know.
NEXT

### 14. What intended use(s) of the LMOs were considered in the decisions? (check all that apply)

- € LMOs intended for direct use as food or feed, or for processing (including placing on the market).
- € LMOs for intentional introduction into the environment (including field trials).
- E LMOs for contained use.
- € Don't know.

**NEXT** 

### 15. How important were the following socio-economic issues when decisions concerning LMOs were made?

	Not considered	Not at all important	Not very important	Neutral	Somewhat important	Very important	Do not know
Impacts on market access and trade at national and international levels.	ρją	jų	ρį	jα	ja	ρί	ja
Macroeconomic impacts, e.g. on sustainable development.	ja	jo	ja	jα	ja	ja	ja
Microeconomic impacts at the individual, household or community level.	ja	ja	ja	ja	ja	ja	ja
Economic impacts of changes in pest prevalence due to changes in farm management practices.	ja	ja	ja	jq	ja	ja	ja
Economic impacts of changes in application rates and effectiveness of pesticides and herbicides.	jα	jα	ρį	jα	ja	ρί	ja
	Not considered	Not at all important	Not very important	Neutral	Somewhat important	Very important	Do not know
Compliance with biosafety measures, including	ja	j₃	ja	jα	ja	jα	j⊲

institutional costs.							
Coexistence of LMOs, e.g. with conventional and organic agriculture.	jq	jq	jq	jq	j <sub>0</sub>	jq	j∢
Health-related impacts, including those resulting from changes in the use of pesticides and herbicides.	jo	jo	jo	jq	ja	jo	ja
Gender impacts.	jα	jα	ja	jα	jα	jα	ja
Labour and Employment.	jα	jα	jα	jo	jα	jα	ja
	Not considered	Not at all important	Not very	Moutral	Somewhat	Very	Do not
	considered	ппропапі	important	Neutral	important	important	know
Impacts on consumers choice or consumption patterns.	jo	jo	ja	j∘	j	jo	jo
consumers choice or consumption							
consumers choice or consumption patterns.	ja	ja	ja	jq	ja	ja	jo
consumers choice or consumption patterns.  Food security.	ja ja	ja ja	ja ja	ja ja	jo jo	ja ja	jo jo
consumers choice or consumption patterns.  Food security.  Land tenure.  Rural-urban	ja ja ja	ja ja	ja ja ja	ja ja ja	ja ja ja	ja ja	jo jo
consumers choice or consumption patterns.  Food security.  Land tenure.  Rural-urban migration.  Farmers' Rights, e.g. control of	ja ja ja	ja ja ja	ja ja ja	ja ja ja	ja ja ja	ja ja ja	jo jo jo

knowledge associated with biodiversity.							
Cultural, spiritual and ethical aspects.	jα	jα	jα	jα	jų	jα	js
Impact on the conservation and sustainable use of biodiversity, e.g. use value, cultural and spiritual value of biodiversity.	jα	ja	jα	jα	ja	ρį	ja
Intellectual property rights.	jα	jα	ja	jα	jα	ja	jķī
Impact on public sector research and development.	jα	ρį	ρį	jα	jα	ρį	jų

Please specify any other issues that were very important.

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considerations taken into account? (Check all that apply.)
For research (contained use of LMO)  For field trials of use of LMO use of LMO
Prior to risk assessment
During risk assessment € € €
After risk e ∈ € €
During appeal, review or e € € € renewal of permit
Other e e
Don't know ∈ ∈ ∈
Please specify the "other" above where applicable.

#### 17. What methods were or are intended to be used to assess socioeconomic considerations? (check all that apply)

economic considerations? (check all that apply)
Environmental/sustainability impact assessments.
€ Cost-benefit assessment.
€ Economic risk assessment.
€ Cost effectiveness.
€ Participatory methods.
€ Others (please
specify):
€ Don't know.
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18. Are the people who evaluate the socio-economic assessmen	it
the same individuals as those who carried out the socio-econon	nic
assessment?	

jm	Yes.
jm	No.
ł-o	Don't know

If you answered 'yes', please proceed to question 19.
If you answered 'no' or 'don't know', please go to question 22.



#### 19. What entity is responsible for carrying out and evaluating the assessment of socio-economic considerations?

- The National Competent Authority or other decision-making authority or institution.
- in An in-house committee within one government department, office or agency.
- $_{\mbox{\scriptsize jn}}$  A government committee made up of several government departments, offices or agencies.
- <sup>jn</sup> A multi-sectoral committee (e.g. a committee with representatives from government, non-governmental organizations and industry).
- <sub>tn</sub> A consultant.
- in An academic institution.
- to The applicant.
- Other (please specify):
- n Don't know.

**NEXT** 

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20. Do those responsible for carrying out and evaluating the assessment have skills, professional training or experience in assessing the socio-economic considerations?

ym Yes ym No ym Don't know

If you answered 'yes', please proceed to question 21.
If you answered 'no' or 'don't know', please go to question 28.





	those responsible for carrying out and evaluating assessments have? (check all that apply)	
€ Economics		
Sociology		
€ Anthropology		
€ Law		
€ Other (please		
specify):		
$_{\in}$ Don't know.		
Please go to que	stion 28.	
NEXT		
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### 22. What entity or entities is/are responsible for carrying out the assessment of socio-economic considerations? (check all that apply)

- € The National Competent Authority or other decision-making authority or institution.
- € An in-house committee within one government department, office or agency.
- A government committee made up of several government departments, offices or agencies.
- A multi-sectoral committee (e.g. a committee with representatives from government, non-governmental organizations and industry).
- € A consultant.
- An academic institution.
- € The applicant.
- Other (please specify):
- Don't know.

NEXT

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23. Do those responsible for carrying out the assessment have skills, professional training or experience in assessing the socioeconomic considerations?

jm	Yes	
jm	No	
im	Don't	know

If you answered 'yes', please proceed to question 24.
If you answered 'no' or 'don't know', please go to question 25.



24. What skills do those responsible for carrying out socio-economic assessments have? (check all that apply)
€ Economics
€ Sociology
€ Anthropology
€ Law
€ Other (please
specify):
€ Don't know.
NEXT

#### 25. What entity or entities is/are responsible for evaluating a socioeconomic assessment in order to recommend a decision? (check all that apply)

- € The National Competent Authority or other decision-making authority or institution.
- € An in-house committee within one government department, office or agency.
- A government committee made up of several government departments, offices or agencies.
- A multi-sectoral committee (e.g. a committee with representatives from government, non-governmental organizations and industry).
- € A consultant.
- € An academic institution.
- The applicant.
- Other (please specify):
- € Don't know.

**NEXT** 

26. Do those responsible for evaluating the assessments have skills, professional training or experience in any of the socio-economic considerations?

jm	Yes	
jm	No	
im	Don't	know

If you answered 'yes', please proceed to question 27. If you answered 'no' or 'don't know', please go to question 28.



	. What skills do those responsible for evaluating socio-economic sessments have? (check all that apply)
	Economics
_	Sociology
_	Anthropology
ê	Law
€	Other (please
	specify):
é	Don't know.
N	NEXT

28. Who pays for the cost of the socio-economic assessment? (check all that apply)
€ The applicant.
E The National Competent Authority or other decision-making authority.
€ Other (please
specify):
€ Don't know.
Please go to question 30.
NEXT

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# 29. If your country has not taken socio-economic considerations into account in its decisions on LMOs, how important are the following reasons for why it has not done so?

	Not at all important	Not very important	Neutral	Somewhat important	Very important	Do not know
Regulation does not require it.	j⊲	j∢	jo	j∢	j⊲	ja
Mechanisms not in place.	jα	jα	jα	jα	jα	jαι
Lack of capacity.	jα	jα	ja	jα	jα	ĵα
Political reasons.	jα	jα	jα	jα	jα	ja
Lack of institutional coordination.	j⊲	jα	jα	jα	j⊲	ja

Were there other important reasons why your country did not take socioeconomic considerations into account in its decisions on LMOs?

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30. Are there other approval processes in your country where socio-economic considerations are included (e.g. approvals for new pharmaceuticals, new pesticides, etc.) even though they are not related to living modified organisms?

jm	Yes	
jm	No	
m	Don't	know

Please go to question 36.

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#### 31. How important do you think the following socioeconomic issues would be to include in your country's decision-making system on LMOs?

	Not at all important	Not very important	Neutral	Somewhat important	Very important	Do not know
Impacts on market access and trade at national and international levels.	jq	j₄	j∘	j∕q	j₄	ρţ
Macroeconomic impacts, e.g. on sustainable development.	ja	ja	jα	ja	ja	ρį
Microeconomic impacts at the individual, household or community level.	jα	j∢	j∢	jα	j∢	ja
Economic impacts of changes in pest prevalence due to changes in farm management practices.	j₄	j∢	jo	j∙q	j∢	jq
Economic impacts of changes in application rates and effectiveness of pesticides and herbicides.	jq	j∢	j∢	j∕q	j⊲	ja
	Not at all	Not very		Somewhat	Very	Do not

	important	important	Neutral	important	important	know
Compliance with biosafety measures, including institutional costs.	jq	jo	j∢	j∢	jo	j∢
Coexistence of LMOs, e.g. with conventional and organic agriculture.	ja	ja	jų	ja	ja	ja
Health-related impacts, including those resulting from changes in the use of pesticides and herbicides.	ja	ja	jα	jα	ja	pj
Gender impacts.	ja	ja	ja	jα	jα	ja
Labour and Employment.	ja	ja	ja	j⊲	jα	ja
	Not at all important	Not very important	Neutral	Somewhat important	Very important	Do not know
Impacts on consumers choice or consumption patterns.	jα	jα	jα	j∢	j∢	j∢ı
Food security.	jα	jα	ja	ja	ja	ja
Land tenure.	ja	ja	ja	ja	ja	ja
Rural-urban migration.	jα	jα	ja	jα	jα	jkı
Farmers' Rights, e.g. control of	jq	ja	þ	ja	ja	ja

seeds.						
	Not at all important	Not very important	Neutral	Somewhat important	Very important	Do not know
Indigenous and local communities, e.g. livelihoods, traditional knowledge associated with biodiversity.	jq	j∢	j∢	jα	j∢	ja
Cultural, spiritual and ethical aspects.	jα	jα	jα	jα	jo	jq
Impact on the conservation and sustainable use of biodiversity, e.g. use value, cultural and spiritual value of biodiversity.	j∙	j∙	j∙	j∙	j₄	ĵù
Intellectual property rights.	ja	ja	jα	ja	ja	jō
Impact on public sector research and development.	j₀	j₀	j∙	j∙	j₀	ją

NEXT

#### 32. In your opinion, what methods should be used to assess socioeconomic considerations? (check all that apply)

economic considerations? (check all that apply)
Environmental/sustainability impact assessments.
∈ Cost-benefit assessment.
€ Economic risk assessment.
€ Cost effectiveness.
€ Participatory methods.
€ Others (please
specify):
€ Don't know.
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### 33. In your opinion, who should be responsible for carrying out the assessment of socio-economic considerations? (check all that apply)

- € The National Competent Authority or other decision-making authority or institution.
- € An in-house committee within one government department, office or agency.
- A government committee made up of several government departments, offices or agencies.
- A multi-sectoral committee (e.g. a committee with representatives from government, non-governmental organizations and industry).
- € A consultant.
- An academic institution.
- € The applicant.
- © Other (please specify):
- Don't know.

**NEXT** 

### 34. In your opinion, who should be responsible for evaluating the assessment of socio-economic considerations? (check all that apply)

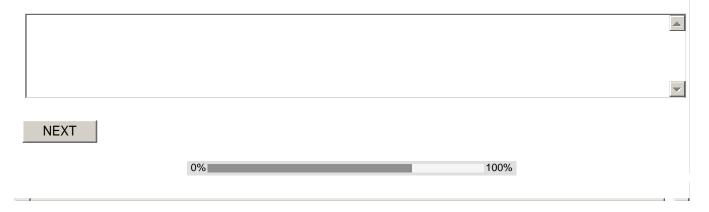
- € The National Competent Authority or other decision-making authority or institution.
- € An in-house committee within one government department, office or agency.
- A government committee made up of several government departments, offices or agencies.
- A multi-sectoral committee (e.g. a committee with representatives from government, non-governmental organizations and industry).
- € A consultant.
- An academic institution.
- € The applicant.
- © Other (please specify):
- Don't know.

**NEXT** 

# 35. In your opinion, at what stage in the decision-making process should socio-economic considerations be taken into account? (Check all that apply.)

	For research (contained use of LMO)	For field trials of LMO	For commercial use of LMO
Prior to risk assessment	€	É	€
During risk assessment	é	é	e
After risk assessment	É	é	€
During appeal, review or renewal of permit	é	€	€
Other	€	€	€
Don't know	€	€	€

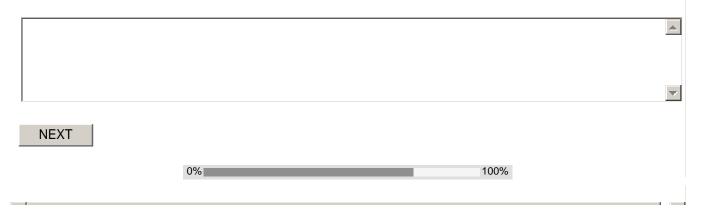
#### Please specify the "Other" above where applicable.



# 36. How important are the following challenges to your country in including socio-economic considerations in its decisions on LMOs?

	Not at all important	Not very important	Neutral	Somewhat important	Very important	Do not know
Institutional challenges	jα	jα	jα	j⊲	jo	jα
Human resources challenges	jα	jα	jα	jα	jα	ja
Financial challenges	jα	jα	jα	j⊲	jo	ja
Informational challenges	jα	jα	jα	jα	jα	ја

Are there other important challenges that your country faces when trying to include socio-economic considerations in its decisions on LMOs? (Please specify)



37. In your opinion, is the capacity adequate in your country for th
performance of socio-economic assessments?

 $_{j_{\cap}}$  Yes  $_{j_{\cap}}$  No  $_{t_{\cap}}$  Don't know

If you answered 'yes', please go to question 39.
If you answered 'no' or 'don't know', please proceed to question 38.

NEXT

38. From the following list, please rank the top 10 areas that are in need of capacity-building in the field of socio-economic assessment for your country? (A ranking of 1 is the top priority while a ranking of 10 is the lowest priority.)

Impacts on market access and trade at national and international levels.
Macroeconomic impacts, e.g. on sustainable development.
Microeconomic impacts at the individual, household or community level.
Economic impacts of changes in pest prevalence due to changes in farm management practices.
Economic impacts of changes in application rates and effectiveness of pesticides and herbicides.
Compliance with biosafety measures, including institutional costs.
Coexistence of LMOs, e.g. with conventional and organic agriculture.
Health-related impacts, including those resulting from changes in the use of pesticides and herbicides.
Gender impacts.
Labour and Employment.
Impacts on consumers choice or consumption patterns.
Food security.
Land tenure.
Rural-urban migration.
Farmers' Rights, e.g. control of seeds.
Indigenous and local communities, e.g. livelihoods, traditional knowledge associated with biodiversity.
Cultural, spiritual and ethical aspects.
Impact on the conservation and sustainable use of biodiversity, e.g. use value, cultural and spiritual value of biodiversity.
Intellectual property rights.
Impact on public sector research and development.

NEXT

39. Do you think a methodology guide (toolkit) would be a useful document to assist the inclusion of socio-economic considerations in your country's decision-making concerning LMOs?

jm	Yes	
jm	No	
m	Don't	know

If you answered 'yes', please proceed to question 40.
If you answered 'no' or 'don't know', please go to question 42.



### 40. How important would information on these elements be in a methodological guide (toolkit)?

	Not at all important	Not very important	Neutral	Somewhat important	Very important	Do not know
Benefit cost assessment	jα	ja	ja	j⊲	j⊲	jα
Economic risk assessment	jα	ja	jα	jα	jα	ja
Cost effectiveness	jα	jq	ja	ja	jα	ja
Macroeconomic impacts	jα	ja	ja	ja	jα	ja
Community analysis	jα	ja	ja	j⊲	j⊲	ja
Property right assessment	jα	jα	jα	jα	jα	þi
Cultural, ethical assessment	jα	jα	jα	j⊲	jα	þi

### What other elements would you find useful in a toolkit?

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41. To whom should a toolkit be targeted? (check all that apply)
∈ Those responsible for conducting assessments.
€ Those responsible for evaluating assessments and recommending decisions.
€ The decision-making authority.
€ Policy makers.
∈ Civil society organizations.
€ Industry.
€ Others (please
specify):
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42. Please provide any other information on tools that your country would find useful for taking socio-economic considerations into account in						
decision-ma	king on LMOs.					
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### **General Assessment**

43. Please indicate your level of agreement with the statements given below.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree	Do not know
Socio- economic considerations should be included in all decision- making frameworks for LMOs	j⊲	j⊲	j∕q	j⊲	j⊲	ja
Socio- economic considerations should be undertaken separately from scientific risk assessments of LMOs	jo	jo	jo	jα	jα	ja
Socio- economic considerations should be part of the scientific risk assessment of LMOs	j∘	j∙q	j∘	j∙q	jά	jų
	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree	Do not know
Decisions concerning LMOs should incorporate						

socio- economic information only after scientific risk assessment information has been considered	ją	ρί	ρį	ja	ρį	j⊲
Decisions concerning LMOs should incorporate socio- economic information at the same time as scientific risk assessment information is being considered	jo	jq	jq	jα	jq	ja

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## 44. Please indicate your level of agreement with the statements given below.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree	Do not know
Socio- economic information should be given more weight than scientific risk assessment information.	ja	ja	ja	ja	ja	ja
Socio- economic information should be given equal weight as scientific risk assessment information.	ja	ja	ja	ja	ja	ja
Socio- economic information should be given less weight than scientific risk assessment information.	pj	ja	ja	ja	jα	ja
	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree	Do not know
Socio- economic assessment should be undertaken at each stage of	ja	ja	jα	j₀	j₀	ja

the scientific risk assessment.						
Specific items or elements should be included in each socioeconomic assessment.	ja	ja	jα	jα	jo	ja
Socio- economic assessments should be designed around the LMO being considered and thus would have different elements included in them.	ρį	jų	jα	ja	jα	jū
						D -
	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree	Do not know
Countries need to build their socio- economic assessment capacity.			Neutral			not
need to build their socio- economic assessment	disagree	disagree		agree	agree	not know

toolkit on how to undertake a socio-economic assessment is a good starting point for capacity-building in this area.	ja	jq	jα	ja	ja	j∘
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45. What is the best way for socio-economic considerations to be incorporated into the decision-making framework on living modified organisms?						
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46. Please provide any other comments on the socio-economic considerations for decision-making on living modified organisms.							
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Thank you for taking the time to complete this survey on the use of socio-economic considerations in decision-making on living modified organisms. Results from the survey will be posted on the Biosafety Clearing-House.

Click on the "Next" button to be redirected to the Biosafety Clearing-House.

NEXT

#### <u>Note:</u>

This page has a link on it. When the survey is run this page will be redirected to:

http://bch.cbd.int/onlineconferences/socioeconomics.shtml